

# CHIMAR.

Binding

Innovation

R&D

Facilities

# Summary of activities

## CORE Business

- |   |   |                                                                            |
|---|---|----------------------------------------------------------------------------|
| ✓ | 1 | Development & Application of Industrial Technology for Binders & Additives |
|   | 2 | Engineering Services & Equipment Supply for resin plants                   |
| ✓ | 3 | Technical Support & Training Services for resin & panel manufacturers      |
| ✓ | 4 | R&D Services for 3 <sup>rd</sup> parties                                   |
| ✓ | 5 | Participation in EU research projects                                      |

## SPECIALITY Services

- |   |   |                                                 |
|---|---|-------------------------------------------------|
|   | 1 | Chemicals production upon request               |
| ✓ | 2 | Accredited testing (EN 17025)                   |
| ✓ | 3 | Resin, Additives & Board testing and evaluation |
|   | 4 | Equipment Representation                        |

- ✓ . Lab and/or Pilot scale equipment  
• required

# Resin Synthesis Equipment

Industrial Synthesis Simulation of:

- Urea Formaldehyde
- Melamine-reinforced Urea Formaldehyde
- Phenol Formaldehyde
- Lignin Formaldehyde
- Paper Impregnation syrups
- Non-Added Formaldehyde Adhesives
- Speciality Additives (Hardeners, Accelerators, Catalysts, Extenders, Scavengers, Rheology Modifiers, etc.)



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# Resin Synthesis Equipment

Reactor for Simulating Industrial  
Syntheses at Elevated Pressures  
( $<20\text{barg}$ )



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# Resin Synthesis Equipment



Pilot-scale Synthesis  
Reactor



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# Analytical Instruments

## “In-house” Analysis Devices:

- GPC
- Kjeldahl / Vapotest
- HPLC
- DSC
- UV-Vis
- FT-NIR
- Freeze-Drying
- RI-meter
- B-Stage Metering



# Board-making Pilot Plant

## Board Production Capabilities:

- Plywood
- Oriented Strand Board (OSB)
- Particleboard
- Medium Density Fibreboard





# Board Testing

## Board Testing Capabilities:

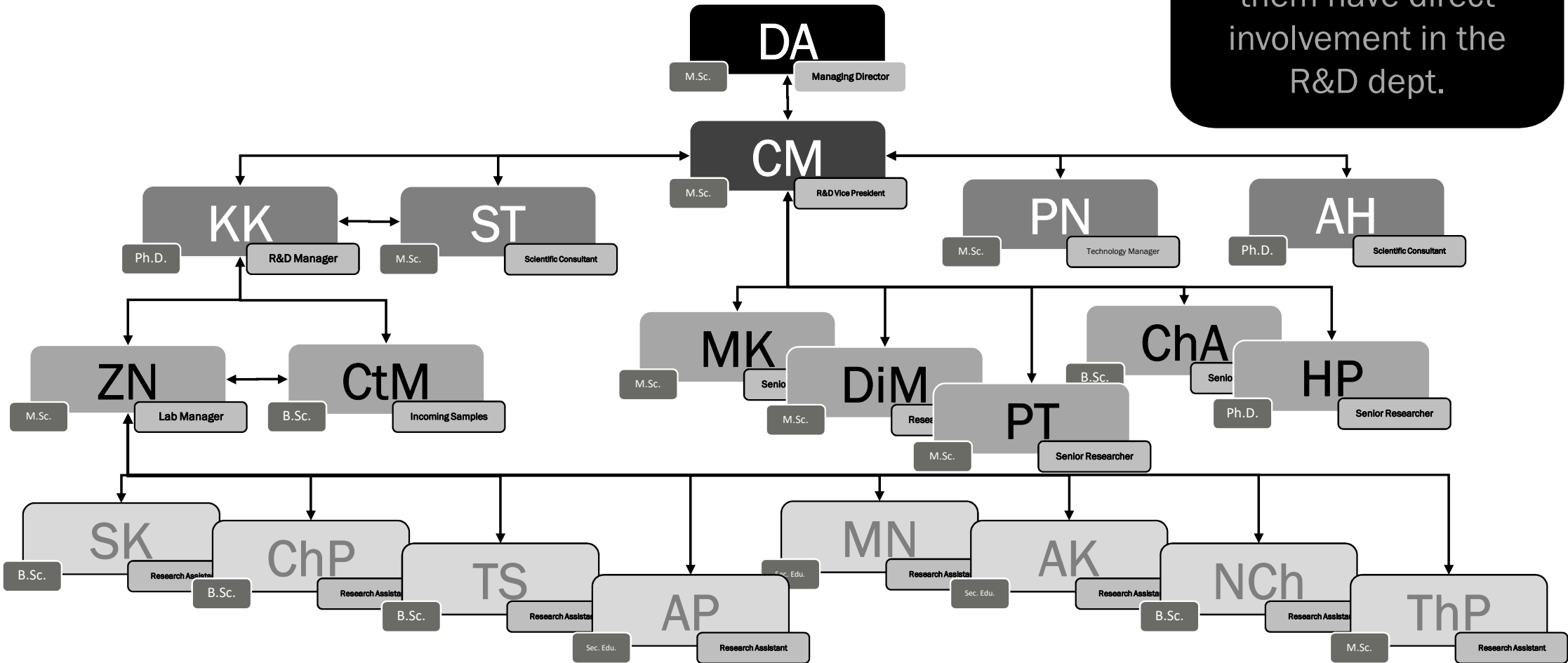
- Physical Properties  
(IB, MOR, MOE, Shear Test)
- Wet Properties  
(Water Absorption, Thickness Swelling, Cyclic Test)
- Formaldehyde Content –  
Perforator Method  
(Accredited Lab)
- Formaldehyde Emissions –  
Gas Analysis Method  
(Accredited Lab)





# R&D Personnel

Out of the 32 CHIMAR employees, 21 of them have direct involvement in the R&D dept.



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